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=> file biosis caba caplus embase japio lifesci medline scisearch uspatfull
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FILE 'USPATFULL' ENTERED AT 16:09:27 ON 23 JAN 2006
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> e sykes kathryn f/au
E1            1     SYKES KARIN CHARLOTTE/AU
E2           11     SYKES KATHRYN/AU
E3           40 --> SYKES KATHRYN F/AU
E4            1     SYKES KATHRYN FRANCES/AU
E5            2     SYKES KATHY/AU
E6            2     SYKES KATHY E/AU
E7            1     SYKES KEBL W/AU
E8            1     SYKES KEBLE W/AU
E9            3     SYKES KEITH/AU
E10           1     SYKES KENNETH C/AU
E11           1     SYKES KENNETH TREMAIN/AU
E12           5     SYKES KENNETH W/AU

=> s e2-e4 and borreli?
L1            2 ("SYKES KATHRYN"/AU OR "SYKES KATHRYN F"/AU OR "SYKES KATHRYN
                FRANCES"/AU) AND BORRELI?

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2             2 DUP REM L1 (0 DUPLICATES REMOVED)

=> d

L2   ANSWER 1 OF 2  USPATFULL on STN
AN     2005:68523  USPATFULL
TI     Methods and compositions for vaccination comprising nucleic acid and/or
       polypeptide sequences of the genus Borrelia
IN     Sykes, Kathryn F., Dallas, TX, UNITED STATES
       Hale, Katherine S., Dallas, TX, UNITED STATES
       Johnston, Stephen A., Dallas, TX, UNITED STATES
PI     US 2005058661      A1   20050317
AI     US 2003-688058     A1   20031017 (10)
PRAI   US 2002-419401P     20021018 (60)
DT     Utility
FS     APPLICATION
LN.CNT 8475
INCL   INCLM: 424/190.100
       INCLS: 424/234.100; 514/044.000
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NCL    NCLM:  424/190.100
       NCLS:  424/234.100; 514/044.000
IC     [7]
       ICM    A61K039-02
       ICS    A61K048-00
       IPCI   A61K0039-02 [ICM,7]; A61K0048-00 [ICS,7]
       IPCR   A61K0039-02 [I,A]; A61K0039-02 [I,C]; A61K0048-00 [I,A];
              A61K0048-00 [I,C]
CAS INDEXING IS AVAILABLE FOR THIS PATENT.


=> d 2

L2   ANSWER 2 OF 2  CAPLUS  COPYRIGHT 2006 ACS on STN
AN   2004:1033546  CAPLUS
DN   142:22291
TI   Nucleic acid and/or polypeptide sequences of Borrelia
     burgdorferi for vaccination and antibody preparation techniques
IN   Sykes, Kathryn F.; Hale, Katherine S.; Johnston, Stephen A.
PA   Macrogenics, Inc., USA; Board of Regents, the University of Texas System
SO   PCT Int. Appl., 121 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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PI   WO 2004103269        A2    20041202    WO 2003-US33056        20031017
        W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
            GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
            LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
            OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
            TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
            KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
            FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
            BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     US 2005058661        A1    20050317    US 2003-688058         20031017
PRAI US 2002-419401P      P     20021018


=> e hale katherine s/au
E1            9     HALE KATE/AU
E2            2     HALE KATHERINE/AU
E3            5 --> HALE KATHERINE S/AU
E4            1     HALE KATHERINE STEMKE/AU
E5            1     HALE KATHLEEN/AU
E6            4     HALE KATHRYN/AU
E7            3     HALE KATHRYN A/AU
E8            2     HALE KATHY/AU
E9            4     HALE KATHY A/AU
E10           1     HALE KATIE/AU
E11           1     HALE KAVE/AU
E12           1     HALE KAYE/AU

=> s e2-e4 and borreli?
L3            2 ("HALE KATHERINE"/AU OR "HALE KATHERINE S"/AU OR "HALE KATHERINE
                STEMKE"/AU) AND BORRELI?

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):y

L3   ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2006 ACS on STN
AN   2004:1033546  CAPLUS
DN   142:22291
TI   Nucleic acid and/or polypeptide sequences of Borrelia
     burgdorferi for vaccination and antibody preparation techniques
IN   Sykes, Kathryn F.; Hale, Katherine S.; Johnston, Stephen A.
```

PA Macrogenics, Inc., USA; Board of Regents, the University of Texas System
SO PCT Int. Appl., 121 pp.
    CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004103269	A2	20041202	WO 2003-US33056	20031017
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2005058661	A1	20050317	US 2003-688058	20031017
PRAI	US 2002-419401P	P	20021018		

AB The invention relates to 34 antigens and nucleic acids encoding such antigens obtainable by screening a **Borrelia** genome, in particular a B. burgdorferi genome. In more specific aspects, the invention relates to methods of isolating such antigens and nucleic acids and to methods of using such isolated antigens for producing immune responses. The ability of an antigen to produce an immune response may be employed in vaccination or antibody preparation techniques.

L3 ANSWER 2 OF 2 USPATFULL on STN
AN 2005:68523 USPATFULL
TI Methods and compositions for vaccination comprising nucleic acid and/or polypeptide sequences of the genus **Borrelia**
IN Sykes, Kathryn F., Dallas, TX, UNITED STATES
    Hale, Katherine S., Dallas, TX, UNITED STATES
    Johnston, Stephen A., Dallas, TX, UNITED STATES
PI US 2005058661 A1 20050317
AI US 2003-688058 A1 20031017 (10)
PRAI US 2002-419401P 20021018 (60)
DT Utility
FS APPLICATION
LREP FULBRIGHT & JAWORSKI L.L.P., 600 CONGRESS AVE., SUITE 2400, AUSTIN, TX, 78701
CLMN Number of Claims: 23
ECL Exemplary Claim: CLM-01-30
DRWN 2 Drawing Page(s)
LN.CNT 8475
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to antigens and nucleic acids encoding such antigens obtainable by screening a **Borrelia** genome, in particular an B. burgdorferi genome. In more specific aspects, the invention relates to methods of isolating such antigens and nucleic acids and to methods of using such isolated antigens for producing immune responses. The ability of an antigen to produce an immune response may be employed in vaccination or antibody preparation techniques.

=> e johnston stephen a/au

E1	3	JOHNSTON STEPHANIE P/AU
E2	38	JOHNSTON STEPHEN/AU
E3	112	--> JOHNSTON STEPHEN A/AU
E4	152	JOHNSTON STEPHEN ALBERT/AU
E5	1	JOHNSTON STEPHEN B/AU
E6	14	JOHNSTON STEPHEN D/AU
E7	1	JOHNSTON STEPHEN DOUGLAS/AU
E8	6	JOHNSTON STEPHEN E/AU
E9	2	JOHNSTON STEPHEN H/AU
E10	2	JOHNSTON STEPHEN HAROLD/AU

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E11          12     JOHNSTON STEPHEN J/AU
E12           1     JOHNSTON STEPHEN L/AU

=> s e2-e4 and borreli?
L4            5 ("JOHNSTON STEPHEN"/AU OR "JOHNSTON STEPHEN A"/AU OR "JOHNSTON
                STEPHEN ALBERT"/AU) AND BORRELI?

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5            5 DUP REM L4 (0 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 5 ANSWERS - CONTINUE? Y/(N):y

L5   ANSWER 1 OF 5  USPATFULL on STN
AN     2005:68523  USPATFULL
TI     Methods and compositions for vaccination comprising nucleic acid and/or
       polypeptide sequences of the genus Borrelia
IN     Sykes, Kathryn F., Dallas, TX, UNITED STATES
       Hale, Katherine S., Dallas, TX, UNITED STATES
         Johnston, Stephen A., Dallas, TX, UNITED STATES
PI     US 2005058661      A1   20050317
AI     US 2003-688058     A1   20031017 (10)
PRAI   US 2002-419401P     20021018 (60)
DT     Utility
FS     APPLICATION
LREP   FULBRIGHT & JAWORSKI L.L.P., 600 CONGRESS AVE., SUITE 2400, AUSTIN, TX,
       78701
CLMN   Number of Claims: 23
ECL    Exemplary Claim: CLM-01-30
DRWN   2 Drawing Page(s)
LN.CNT 8475
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB     The invention relates to antigens and nucleic acids encoding such
       antigens obtainable by screening a Borrelia genome, in
       particular an B. burgdorferi genome. In more specific aspects, the
       invention relates to methods of isolating such antigens and nucleic
       acids and to methods of using such isolated antigens for producing
       immune responses. The ability of an antigen to produce an immune
       response may be employed in vaccination or antibody preparation
       techniques.

L5   ANSWER 2 OF 5  CAPLUS  COPYRIGHT 2006 ACS on STN
AN   2004:1033546  CAPLUS
DN   142:22291
TI   Nucleic acid and/or polypeptide sequences of Borrelia
     burgdorferi for vaccination and antibody preparation techniques
IN   Sykes, Kathryn F.; Hale, Katherine S.; Johnston, Stephen A.
PA   Macrogenics, Inc., USA; Board of Regents, the University of Texas System
SO   PCT Int. Appl., 121 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     --------------      ----   --------    --------------------    --------
PI   WO 2004103269        A2    20041202    WO 2003-US33056         20031017
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
             OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
             TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     US 2005058661         A1    20050317    US 2003-688058          20031017
PRAI US 2002-419401P       P     20021018
```

AB The invention relates to 34 antigens and nucleic acids encoding such antigens obtainable by screening a **Borrelia** genome, in particular a B. burgdorferi genome. In more specific aspects, the invention relates to methods of isolating such antigens and nucleic acids and to methods of using such isolated antigens for producing immune responses. The ability of an antigen to produce an immune response may be employed in vaccination or antibody preparation techniques.

L5 ANSWER 3 OF 5 USPATFULL on STN
AN 2004:273315 USPATFULL
TI Use of Parapox B2L protein to modify immune responses to administered antigens
IN **Johnston, Stephen A.**, Dallas, TX, UNITED STATES
McGuire, Michael J., Dallas, TX, UNITED STATES
PI US 2004213807 A1 20041028
AI US 2004-857546 A1 20040528 (10)
RLI Continuation of Ser. No. US 2003-414609, filed on 15 Apr 2003, GRANTED, Pat. No. US 6752996 Continuation-in-part of Ser. No. US 2002-123058, filed on 15 Apr 2002, GRANTED, Pat. No. US 6752995 Continuation-in-part of Ser. No. WO 2002-US38971, filed on 6 Dec 2002, PENDING
PRAI US 2001-336694P 20011207 (60)
DT Utility
FS APPLICATION
LREP RICHARD ARON OSMAN, SCIENCE AND TECHNOLOGY LAW GROUP, 242 AVE VISTA DEL OCEANO, SAN CLEMEMTE, CA, 92672
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 673
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The Parapox B2L virus envelope protein is used as an adjuvant to enhance a subject's response to an administered antigen. Both antibody and cellular immune responses can be modified. B2L protein is particularly useful as an adjuvant for poorly immunogenic tumor vaccines and subunit vaccines, such as those useful for preventing and/or treating flu, tuberculosis, respiratory syncytial virus, anthrax and HIV.

L5 ANSWER 4 OF 5 USPATFULL on STN
AN 2004:70931 USPATFULL
TI USE OF PARAPOX B2L PROTEIN TO MODIFY IMMUNE RESPONSES TO ADMINISTERED ANTIGENS
IN **Johnston, Stephen A.**, Dallas, TX, UNITED STATES
McGuire, Michael J., Dallas, TX, UNITED STATES
PI US 2004054159 A1 20040318
US 6723329 B2 20040420
AI US 2003-414759 A1 20030415 (10)
RLI Continuation of Ser. No. WO 2002-US38971, filed on 6 Dec 2002, PENDING
PRAI US 2001-336694P 20011207 (60)
DT Utility
FS APPLICATION
LREP RICHARD ARON OSMAN, SCIENCE AND TECHNOLOGY LAW GROUP, 75 DENISE DRIVE, HILLSBOROUGH, CA, 94010
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 505
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The Parapox B2L virus envelope protein is used as an adjuvant to enhance a subject's response to an administered antigen. Both antibody and cellular immune responses can be modified. B2L protein is particularly useful as an adjuvant for poorly immunogenic tumor vaccines and subunit vaccines, such as those useful for preventing and/or treating flu, tuberculosis, respiratory syncytial virus, anthrax and HIV.

L5 ANSWER 5 OF 5 USPATFULL on STN
AN 2003:276712 USPATFULL
TI Use of parapox B2L protein to modify immune responses to administered antigens
IN **Johnston, Stephen A.**, Dallas, TX, UNITED STATES

McGuire, Michael J., Dallas, TX, UNITED STATES
PI US 2003194737 A1 20031016
US 6752996 B2 20040622
AI US 2003-414609 A1 20030415 (10)
RLI Continuation of Ser. No. US 2002-123058, filed on 15 Apr 2002, PENDING
DT Utility
FS APPLICATION
LREP RICHARD ARON OSMAN, SCIENCE AND TECHNOLOGY LAW GROUP, 75 DENISE DRIVE, HILLSBOROUGH, CA, 94010
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 671
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The Parapox B2L virus envelope protein is used as an adjuvant to enhance a subject's response to an administered antigen. Both antibody and cellular immune responses can be modified. B2L protein is particularly useful as an adjuvant for poorly immunogenic tumor vaccines and subunit vaccines, such as those useful for preventing and/or treating flu, tuberculosis, respiratory syncytial virus, anthrax and HIV.

=> s borreli? and vaccin? and antigen?
L6 3360 BORRELI? AND VACCIN? AND ANTIGEN?

=> s l6 and borreli?/ti and vaccin?/ti and antigen?/ti
L7 30 L6 AND BORRELI?/TI AND VACCIN?/TI AND ANTIGEN?/TI

=> dup rem l7
PROCESSING COMPLETED FOR L7
L8 17 DUP REM L7 (13 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 17 ANSWERS - CONTINUE? Y/(N):y

L8 ANSWER 1 OF 17 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
DUPLICATE 1
AN 2005:321844 BIOSIS
DN PREV200510111626
TI Synthesis of major glycolipid **antigens** of **Borrelia** burgdorferi for use in conjugate **vaccines** against Lyme disease.
AU Pozsgay, Vince [Reprint Author]; Kubler-Kielb, Joanna; Coxon, Bruce; Ben-Menachem, Gil; Schneerson, Rachel
CS NICHHD, NIH, Bethesda, MD 20892 USA
SO Glycobiology, (NOV 2004) Vol. 14, No. 11, pp. 1087.
Meeting Info.: Joint Meeting of the Society-for-Glycobiology/Japanese-Society-for-Carbohydrate-Research. Honolulu, HI, USA. November 17 -20, 2004. Soc Gylcobiol; Japanese Soc Carbohydrate Res.
ISSN: 0959-6658.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 25 Aug 2005
Last Updated on STN: 25 Aug 2005

L8 ANSWER 2 OF 17 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
DUPLICATE 2
AN 2003:174578 BIOSIS
DN PREV200300174578
TI Artificial-infection protocols allow immunodetection of novel **Borrelia** burgdorferi **antigens** suitable as **vaccine** candidates against Lyme disease.
AU Wallich, Reinhard; Jahraus, Oliver; Stehle, Thomas; Tran, Thi Thanh Thao; Brenner, Christiane; Hofmann, Heidelore; Gern, Lise; Simon, Markus M. [Reprint Author]
CS Max-Planck-Institut fuer Immunbiologie, Stuebeweg 51, D-79108, Freiburg, Germany
simon@immunbio.mpg.de
SO European Journal of Immunology, (March 2003) Vol. 33, No. 3, pp. 708-719.

print.
ISSN: 0014-2980 (ISSN print).
DT Article
LA English
ED Entered STN: 9 Apr 2003
Last Updated on STN: 9 Apr 2003
AB **Vaccination** with recombinant outer surface protein A (OspA) from **Borrelia** burgdorferi provides excellent antibody-mediated protection against challenge with the pathogen in animal models and in humans. However, the bactericidal antibodies are ineffective in the reservoir host, since OspA is expressed by spirochetes only in the vector, but rarely, if at all, in mammals. Using an artificially generated immune serum (anti-108 spirochetes) with high protective potential for prophylactic and therapeutic treatment, we have now isolated from an expression library of B. burgdorferi (strain ZS7) three novel genes, zs7.a36, zs7.a66 and zs7.a68. All three genes are located, together with ospA/B, on the linear plasmid lp54, and are expressed in vitro and in ticks. At least temporarily two of them, ZS7.A36 and ZS7.A66, are also expressed during infection. The respective natural **antigens** are poorly immunogenic in infected normal mice but elicited antibodies in Lyme disease patients. We show that recombinant preparations of ZS7.A36, ZS7.A66 and ZS7.A68 induce functional antibodies in rabbits capable of protecting immunodeficient mice against subsequent experimental infection. These findings suggest that all three recombinant **antigens** represent potential candidates for a 'second generation' **vaccine** to prevent and/or cure Lyme disease.

L8 ANSWER 3 OF 17 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
DUPLICATE 3
AN 2002:39532 BIOSIS
DN PREV200200039532
TI Tick (Ixodes scapularis) vector saliva-induced Lyme disease spirochete (**Borrelia** burgdorferi) **antigens** as **vaccine** candidates.
AU Nelson, David R. [Inventor, Reprint author]; Mather, Thomas N. [Inventor]; Scorpio, Angelo [Inventor]
CS Wakefield, RI, USA
ASSIGNEE: The Board of Governors for Higher Education, State of Rhode Island, Providence, RI, USA; Providence Plantations, Providence, RI, USA
PI US 6312915 20011106
SO Official Gazette of the United States Patent and Trademark Office Patents, (Nov. 6, 2001) Vol. 1252, No. 1. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 2 Jan 2002
Last Updated on STN: 25 Feb 2002
AB The invention relates to a method by which new **antigens** from vector-borne pathogens may be discovered and analyzed by incubating the viable pathogens in the saliva of their vector host. Three such **antigens**, proteins with the approximate molecular weights of 19, 22 and 24 kDa, have been discovered and analyzed from a strain of B. burgdorferi T-15. The proteins provide a route for the development of immunodiagnostics for Lyme disease and related disorders. The proteins and related amino acids and DNA sequences may also be used for the immunization, for the detection of B. burgdorfei in human or body fluids, and also for the generation of specific antibodies for use in diagnosis, epidemiology, prevention of and treatment of Lyme disease.

L8 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:192612 CAPLUS
DN 134:232720
TI The 66 kDa **antigens** and their genes from **Borrelia** species and their use as **vaccines** and diagnostic agents
IN Bergstrom, Sven; Barbour, Alan George
PA Symbicom Aktiebolag, Swed.
SO U.S., 43 pp., Cont.-in-part of U.S. 6,054,296.
CODEN: USXXAM
DT Patent

LA English
FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6204018	B1	20010320	US 1997-750494	19970612
	US 6054296	A	20000425	US 1994-262220	19940620
	WO 9535379	A1	19951228	WO 1995-US7665	19950619
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
PRAI	US 1994-262220	A2	19940620		
	WO 1995-US7665	W	19950619		
	DK 1988-5902	A	19881024		
	US 1989-422881	B1	19891018		
	US 1992-924798	B1	19920806		
	US 1993-79601	A2	19930622		

AB Nucleic acid fragments are disclosed which encode a polypeptide **antigen** reactive with antisera from rabbits immunized with a 66-kDa protein from **Borrelia** garinii IP90. The presence of nucleic acid fragments encoding such a polypeptide **antigen** as well as the presence of the polypeptide **antigen** are demonstrated in B. burgdorferi sensu lato B31, B. afzelii ACAI and B. garinii IP90, but are substantially absent from ≥95% of randomly selected B. hermsii, B. crocidurae, B. anserina, and B. hispanica. The encoded polypeptide is surface exposed on the bacterial surface; it is highly conserved, and is thus potentially useful as a **vaccine** agent and as a diagnostic agent in the diagnosis of infections with B. burgdorferi as are the characteristic nucleic acid fragments of the invention. Also disclosed are methods of producing the polypeptide **antigen** according to the invention as are antibodies directed against the **antigen**.

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:432780 CAPLUS
DN 135:24652
TI **Antigens** for the diagnosis of Lyme **borreliosis** and **vaccine** against the disease
IN Jungblut, Peter; Dilgimen, Aydan; Thies, Sascha; Wittmann, Brigitte
PA Wita Proteomics A.-G., Germany
SO Ger. Offen., 4 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19960113	A1	20010613	DE 1999-19960113	19991208
	WO 2001042790	A2	20010614	WO 2000-EP12454	20001208
	WO 2001042790	A3	20011206		
	W: CA, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	EP 1238280	A2	20020911	EP 2000-991154	20001208
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	US 2003138868	A1	20030724	US 2002-149532	20020930
PRAI	DE 1999-19960113	A	19991208		
	WO 2000-EP12454	W	20001208		

AB The invention concerns the diagnosis of Lyme **borreliosis** with glyceraldehyde-3-phosphate dehydrogenase, oligopeptide permease or their fragments as **antigens** and the use of these enzymes, their fragments or coding DNA as **vaccines**. The **antigens** are specific for **Borrelia** garinii antibodies; for ELISA assays **antigens** are immobilized onto a solid carrier. Assays are

performed from body fluids, especially from serum.

L8 ANSWER 6 OF 17 LIFESCI COPYRIGHT 2006 CSA on STN
AN 2002:9382 LIFESCI
TI Tick (Ixodes scapularis) vector saliva-induced Lyme disease spirochete (**Borrelia** burgdorferi) **antigens** as **vaccine** candidates
AU Nelson, D.R.; Mather, T.N.; Scorpio, A.
CS The Board of Governors for Higher Education, State of Rhode Island
SO (20011106) . US Patent: 6312915; US CLASS: 435/7.1; 435/7.22; 435/7.32; 435/7.92; 435/34; 435/41; 436/506.
DT Patent
FS W3
LA English
SL English
AB The invention relates to a method by which new **antigens** from vector-borne pathogens may be discovered and analyzed by incubating the viable pathogens in the saliva of their vector host. Three such **antigens**, proteins with the approximate molecular weights of 19, 22 and 24 kDa, have been discovered and analyzed from a strain of B. burgdorferi T-15. The proteins provide a route for the development of immunodiagnostics for Lyme disease and related disorders. The proteins and related amino acids and DNA sequences may also be used for the immunization, for the detection of B. burgdorfei in human or body fluids, and also for the generation of specific antibodies for use in diagnosis, epidemiology, prevention of and treatment of Lyme disease.

L8 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:260541 CAPLUS
DN 132:275757
TI Method for diagnosis of **Borrelia** infection and **Borrelia** **antigens** for use in **vaccines**
IN Simon, Markus; Wallich, Reinhard; Kramer, Michael
PA Max-Planck-Gesellschaft Zur Forderung Der Wissenschaften E.V., Germany
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000022134	A2	20000420	WO 1999-EP7651	19991012
	WO 2000022134	A3	20000824		
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	DE 19847142	A1	20000427	DE 1998-19847142	19981013
	AU 9963383	A1	20000501	AU 1999-63383	19991012
PRAI	DE 1998-19847142	A	19981013		
	WO 1999-EP7651	W	19991012		

AB The invention relates to a method and a kit for the diagnosis of **Borrelia** infection by detection of anti-**Borrelia** antibodies. The invention also relates to novel **Borrelia** cells, lysates, fractions and **antigens** of said cells and to their use as anal. reagents or immunogens. Thus, **Borrelia** growing in mice were found to express addnl. **antigenic** proteins (of mol. weight 9.5, 18, 19, 30, 32, 33, 62, 70, 80, 90, 100, and 102 kilodaltons) relative to those cultured in vitro. These **antigens** are the basis of diagnosis of **Borrelia** infection, i.e., they are used in Western blots, ELISA, or immunofluorescence assays to detect the presence of anti-**Borrelia** antibodies. The sequences of these proteins and the genes encoding these proteins were determined The genes were expressed in Escherichia coli.

L8 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:194170 CAPLUS
DN 130:236453
TI P13 **antigens** and P13 genes of Lyme disease **Borrelia** and methods for diagnosis and **vaccination**
IN Bergstrom, Sven
PA Symbicom Ab, Swed.
SO PCT Int. Appl., 118 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9912960	A2	19990318	WO 1998-IB1424	19980904
	WO 9912960	A3	19990527		
	W: AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ, DE, DE, DK, DK, EE, EE, ES, FI, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2300365	AA	19990318	CA 1998-2300365	19980904
	AU 9888811	A1	19990329	AU 1998-88811	19980904
	EP 1012269	A2	20000628	EP 1998-940504	19980904
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	DK 1997-1041	A	19970910		
	US 1997-59036P	P	19970916		
	WO 1998-IB1424	W	19980904		

AB A 13 kDa cell surface **antigen** (P13) found on Lyme disease **Borrelia** (B. burgdorferi, B. garinii, B. afzelii) but not B. hermsii, B. crocidurae, B. anserina, or B. hispanica and the gene for P13 are disclosed. Addnl., P13 epitopes, vectors, transformed cells, a method of preparing P13 or P13 epitopes, and **vaccines** as well as diagnostic compns. and kits are further disclosed. The P13 genes of the 3 Lyme disease **Borrelia** were cloned and sequenced. The B. burgdorferi P13 gene was expressed in Escherichia coli.

L8 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:27959 CAPLUS
DN 130:109198
TI **Borrelia** polynucleotides and **antigenic** polypeptides for use as Lyme disease **vaccines** and diagnostics
IN Choi, Gil H.; Erwin, Alice L.; Hanson, Mark S.; Lathigra, Raju
PA Human Genome Sciences, Inc., USA; Medimmune, Inc.
SO PCT Int. Appl., 275 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9859071	A1	19981230	WO 1998-US12718	19980618
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2294568	AA	19981230	CA 1998-2294568	19980618
	AU 9881518	A1	19990104	AU 1998-81518	19980618
	EP 1009859	A1	20000621	EP 1998-931370	19980618

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

	US 6902893	B1	20050607	US 2001-830230	19980618
	US 2005147999	A1	20050707	US 2004-994726	20041123
PRAI	US 1997-50359P	P	19970620		
	US 1997-53344P	P	19970722		
	US 1997-53377P	P	19970722		
	US 1997-57483P	P	19970903		
	WO 1998-US12718	W	19980618		
	US 2001-830230	A3	20010927		

AB The present invention relates to novel **vaccines** for the prevention or attenuation of Lyme disease. The invention further relates to isolated nucleic acid mols. encoding **antigenic** polypeptides of **Borrelia** burgdorferi. Also provided are **antigenic** polypeptides for use as **vaccine** and antibodies for diagnosis, as are vectors, host cells and recombinant methods for producing the same. The invention addnl. relates to diagnostic methods for detecting **Borrelia** gene expression.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:126359 CAPLUS
DN 128:202966
TI **Antigenic** proteins of **Borrelia** burgdorferi and the genes encoding them and their use in test kits and **vaccines**
IN Motz, Manfred; Soutschek, Erwin
PA Mikrogen Molekularbiologische Entwicklungs-G.m.b.H., Germany; Motz, Manfred; Soutschek, Erwin
SO PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9806850	A1	19980219	WO 1997-EP4215	19970801
	W: AU, CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19632862	A1	19980219	DE 1996-19632862	19960814
	CA 2263152	AA	19980219	CA 1997-2263152	19970801
	AU 9738509	A1	19980306	AU 1997-38509	19970801
	EP 918865	A1	19990602	EP 1997-935563	19970801
	EP 918865	B1	20050316		
	R: AT, BE, CH, DE, DK, FR, GB, LI, LU, NL, SE, MC, IE, FI				
	AT 291088	E	20050415	AT 1997-935563	19970801
	US 6610301	B1	20030826	US 1999-242299	19990212
	US 2003185859	A1	20031002	US 2003-403220	20030326
	US 6808711	B2	20041026		
PRAI	DE 1996-19632862	A	19960814		
	WO 1997-EP4215	W	19970801		
	US 1999-242299	A3	19990212		

AB Two new **antigenic** proteins of **Borrelia** burgdorferi (proteins 1829-22A and 1829-22B) that can be purified in a form suitable for use in **vaccines** are described. These proteins can also be used in diagnostic assays for antibodies to **Borrelia**. These proteins were obtained as part of an octyl glucoside-soluble protein pool of B. burgdorferi lysates. After fractionation of the pool on polyacrylamide gels, partial sequences were used to derive probes for the genes. 1829-22B was manufactured by expression of the gene in Escherichia coli. The protein was found to be specific for Lyme **borreliosis** patients and responded to the Ig class that earlier diagnostic assays had identified.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:385690 CAPLUS
DN 127:4090

TI Tick (Ixodes scapularis) vector saliva-induced Lyme disease spirochete (**Borrelia** burgdorferi) **antigens** as **vaccine** candidates
IN Nelson, David R.; Mather, Thomas N.; Scorpio, Angelo
PA Board of Governors for Higher Education, State of Rhode Island and Providence Plantations, USA
SO PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9715600	A1	19970501	WO 1996-US17445	19961028
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 880543	A1	19981202	EP 1996-939512	19961028
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6312915	B1	20011106	US 1997-790569	19970129
PRAI US 1995-548497	A	19951026		
WO 1996-US17445	W	19961028		

AB The invention relates to a method by which new **antigens** from vector-borne pathogens may be discovered and analyzed by incubating the viable pathogens in the saliva of their vector host. Three such **antigens**, proteins with the approx. mol. wts. of (19, 22 and 24) kDa, have been discovered and analyzed from a strain of **Borrelia** Burgdorferi T-15. The proteins provide a route for the development of immunodiagnostics for Lyme disease and related disorders. The proteins and related amino acids and DNA sequences may also be used for the immunization, for the detection of B. burgdorferi in human or body fluids, and also for the generation of specific antibodies for use in diagnosis, epidemiol., prevention of and treatment of Lyme disease.

L8 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:729 CAPLUS
DN 126:103100
TI Recombinant mycobacteria expressing **Borrelia antigen** on their surface and use of recombinant mycobacteria as **vaccines** for Lyme disease
IN Stover, Charles K.
PA Medimmune, Inc., USA
SO U.S., 112 pp., Cont.-in-part of U.S. Ser. No. 780,261, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5583038	A	19961210	US 1992-977630	19921117
PRAI US 1991-780261	B2	19911021		

AB An expression vector for expressing a protein in mycobacteria, which comprises a first DNA sequence encoding at least a secretion signal of a lipoprotein, and a second DNA sequence encoding a protein, or fragment thereof, which is heterologous to the mycobacteria which express the protein or fragment is described. The mycobacteria express a fusion protein comprising a lipoprotein or lipoprotein segment and the protein or fragment. Such expression vectors increase the immunogenicity of the protein or fragment by enabling the protein or fragment to be expressed on the surface of the mycobacteria. Mycobacteria which may be transformed with the expression vector include mycobacteria such as BCG. The expression vectors of the present invention may be employed in the formation of live bacterial **vaccines** against Lyme disease wherein the mycobacteria express a surface protein of **Borrelia** burgdorferi, the causative agent of Lyme disease. Recombinant BCG expressing a chimeric gene comprising M. tuberculosis 19 kDa **antigen** promoter and signal sequence fused to B. burgdorferi OspA **antigen** gene were prepared The OspA **antigen** was presented on the surface of BCG. Mice **vaccinated** with these recombinant BCG were protected from challenge with B. burgdorferi.

L8 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1996:405946 CAPLUS
DN 125:83996
TI Identification and evaluation of **Borrelia** burgdorferi **antigens** as components of a subunit Lyme disease **vaccine**
AU Probert, William Scott
CS Univ. of California, Davis, CA, USA
SO (1995) 85 pp. Avail.: Univ. Microfilms Int., Order No. DA9617971
From: Diss. Abstr. Int., B 1996, 57(2), 869
DT Dissertation
LA English
AB Unavailable

L8 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1996:121191 CAPLUS
DN 124:167520
TI Cloning and expression of gene for 66 kilodalton **antigen** from **Borrelia** and **vaccines** for lyme disease
IN Bergstroem, Sven; Barbour, Alan George
PA Symbicom AB, Swed.
SO PCT Int. Appl., 119 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9535379	A1	19951228	WO 1995-US7665	19950619
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 6054296	A	20000425	US 1994-262220	19940620
	AU 9528632	A1	19960115	AU 1995-28632	19950619
	AU 686407	B2	19980205		
	EP 766739	A1	19970409	EP 1995-923924	19950619
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	US 6204018	B1	20010320	US 1997-750494	19970612
PRAI	US 1994-262220	A	19940620		
	DK 1988-5902	A	19881024		
	US 1989-422881	B1	19891018		
	US 1992-924798	B1	19920806		
	US 1993-79601	A2	19930622		
	WO 1995-US7665	W	19950619		

AB Nucleic acid fragments are disclosed which encode a polypeptide **antigen** reactive with antisera from rabbits immunized with a 66 kDa protein from **Borrelia** garinii IP90. The presence of nucleic acid fragments encoding such a polypeptide **antigen** as well as the presence of the polypeptide **antigen** have been demonstrated in three strains of B. burgdorferi sensu lato, but are substantially absent from at least 95% of randomly selected B. hermsii, B. crocidurae, B. anserina, and B. hispanica. The encoded polypeptide is surface exposed on the bacterial surface, it is highly conserved, and is thus potentially useful as a **vaccine** agent and as a diagnostic agent in the diagnosis of infections with B. burgdorferi as are the characteristic nucleic acid fragments of the invention. Also disclosed are methods of producing the polypeptide **antigen** according to the invention as are antibodies directed against the **antigen**.

L8 ANSWER 15 OF 17 CABA COPYRIGHT 2006 CABI on STN DUPLICATE 4
AN 96:30955 CABA
DN 19960501014
TI Protection against **antigenically** variable **Borrelia** burgdorferi conferred by recombinant **vaccines**
AU Telford, S. R., III; Fikrig, E.; Barthold, W.; Brunet, L. R.; Spielman,

A.; Flavell, R. A.
CS Department of Tropical Public Health, Harvard University School of Public Health, Boston, MA 02115, USA.
SO Journal of Experimental Medicine, (1993) Vol. 178, No. 2, pp. 755-758. 20 ref.
ISSN: 0022-1007
DT Journal
LA English
ED Entered STN: 19960318
Last Updated on STN: 19960318
AB Due to local variation in the **antigenicity** of the agent of Lyme disease (B. burgdorferi), a **vaccine** derived from any one isolate of this spirochaete may fail to protect against the heterogeneous population of organisms that may be present in an enzootic focus. Accordingly, it was determined whether **antigenically** variable spirochaetes delivered by naturally infected [Ixodes scapularis] ticks, collected from a site where transmission is intense, may fail to infect mice actively immunized with recombinant glutathione transferase outer surface fusion proteins A or B (OspA and OspB). Virtually all mice **vaccinated** by either immunogen appeared not to become infected, as determined by culture or histopathology of their tissues. It is concluded that Osp **vaccination** of mice effectively prevents infection by the agent of Lyme disease in a simulated natural cycle of transmission.

L8 ANSWER 16 OF 17 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 1993:410112 BIOSIS
DN PREV199396075837
TI Protection against **antigenically** variable **Borrelia** burgdorferi conferred by recombinant **vaccines**.
AU Telford, Sam R. Iii [Reprint author]; Fikrig, Erol; Barthold, Stephen W.; Brunet, Laura Rosa; Spielman, Andrew; Flavell, Richard A.
CS Dep. Tropical Public Health, Harvard Sch. Public Health, 665 Huntington Ave., Boston, MA 02115, USA
SO Journal of Experimental Medicine, (1993) Vol. 178, No. 2, pp. 754-758. CODEN: JEMEAV. ISSN: 0022-1007.
DT Article
LA English
ED Entered STN: 8 Sep 1993
Last Updated on STN: 3 Jan 1995
AB Due to local variation in the **antigenicity** of the agent of Lyme disease (**Borrelia** burgdorferi), a **vaccine** derived from any one isolate of this spirochete may fail to protect against the heterogeneous population of organisms that may be present in an enzootic focus. Accordingly, we determined whether **antigenically** variable spirochetes delivered by naturally infected ticks, collected from a site where transmission is intense, may fail to infect mice actively immunized with recombinant glutathione transferase outer surface fusion proteins A or B (OspA and OspB). Virtually all mice **vaccinated** by either immunogen appeared not to become infected, as determined by culture or histopathology of their tissues. We conclude that Osp **vaccination** of mice effectively prevents infection by the agent of Lyme disease in a simulated natural cycle of transmission.

L8 ANSWER 17 OF 17 JAPIO (C) 2006 EPO on STN
AN 1991-209400 JAPIO
TI **VACCINE** FOR LYME ARTHRITIS, ITS PREPARATION, MONOCLONAL ANTIBODY, PATHOGENIC BOLERIA BULGDOLFERI STRAIN, **ANTIGEN**, RECOMBINANT DNA, RECOMBINANT VECTOR, PREPARATION OF **ANTIGEN** AND ISOLATION AND RECULTIVATION OF SAID **BORRELIA** BULGDOLFERI SYSTEM
IN MARUKUSU EMU JIMON; URURITSUHI EE SHIYAIBURE; KURAUSU AIHIMAN; MIHIAERU KURAMAA; BUARITSUHI RAINHARUTO
PA MAX PLANCK GES FOERDERUNG WISSENSCHAFT EV
DOITSUCHIESU KUREEPUSUFUORUSHIYUNGUSUTSUENTORUMU SUCHIFUTSUNGU DESU ETSUFUEN TORITSUHIEN REHITSU
PI JP 03209400 A 19910912 Heisei
AI JP 1990-247650 (JP02247650 Heisei) 19900919
PRAI DE 1989-3931236 19890919
DE 1990-4015911 19900517